

Step 3:

Analyze the Business and Define the Target Business Environment

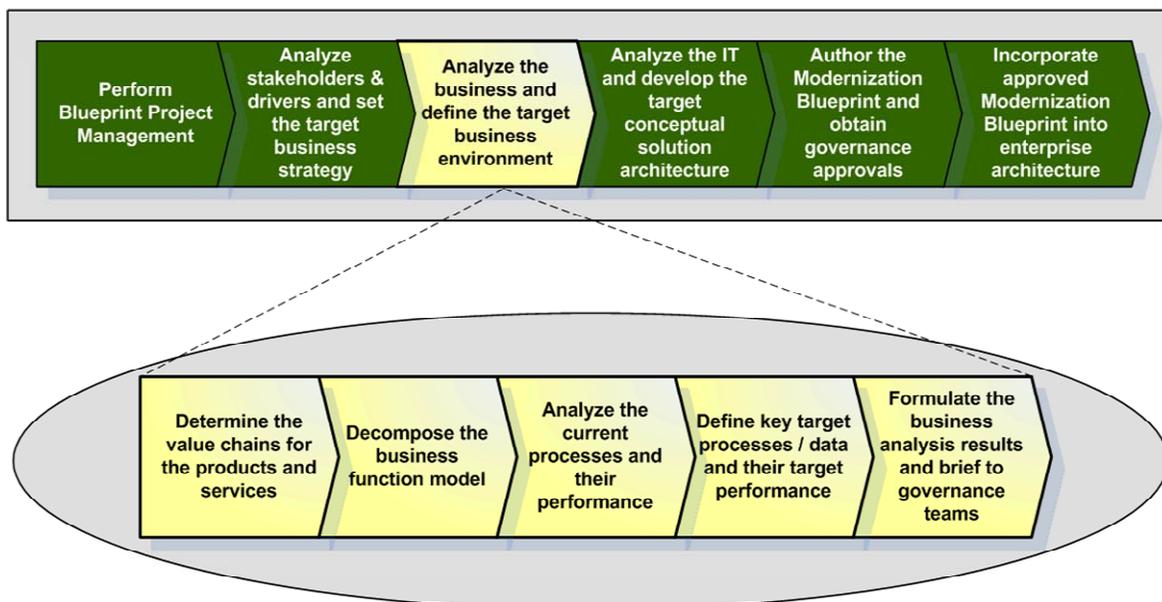
Version 1.5.3, September 2007

1. Step Description and Purpose

Step 3: *Analyze the Business and Define the Target Business Environment*, is intended to take a closer look at the business products and services, processes, information, and investments in order to formulate and support the findings and recommendations of the Modernization Blueprint.

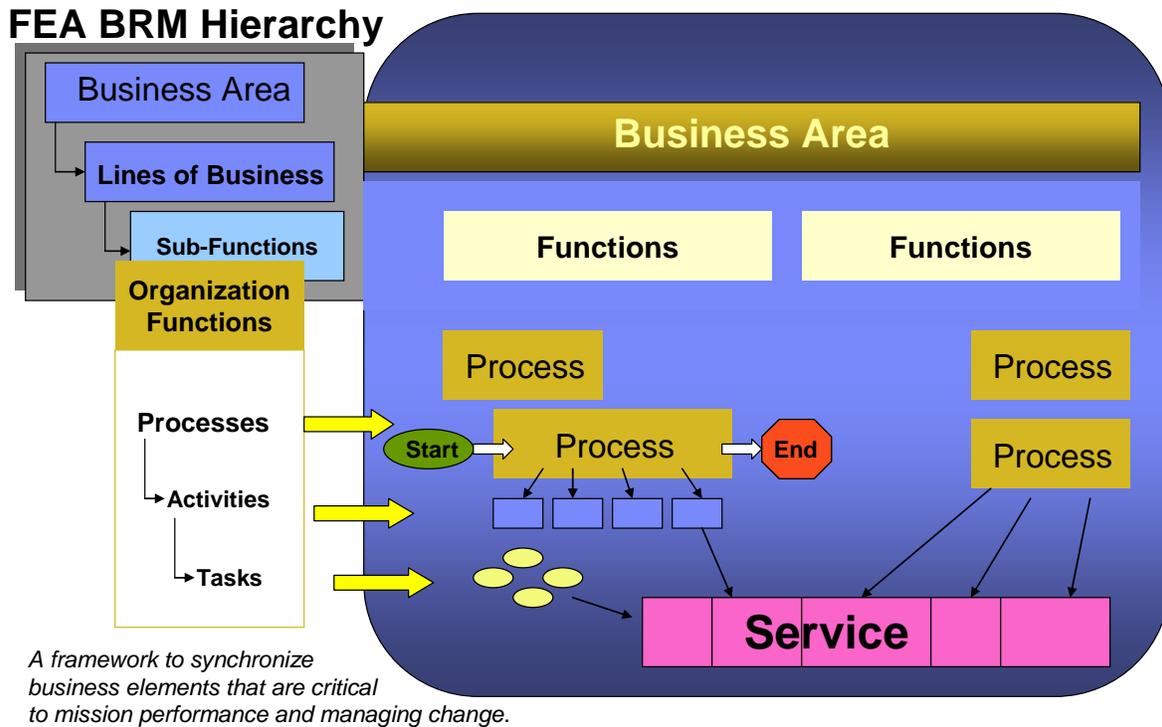
This step uses outputs from the stakeholder analysis in Step 2 to conduct a more thorough business assessment. The purpose of this step is to document quantitative and qualitative evidence that will provide the basis for subsequent Modernization Blueprint findings and recommendations.

This step begins with the identification of value creation in the context of the business processes that deliver products or services. Analysis of the current business model is performed to identify and analyze the processes that deliver key products and services. Identification of key information sources and data dependencies is used to gain understanding of how knowledge and information is created, transformed, and used by the processes. The step concludes with development of the target processes for the delivery of products and services, along with the information, and data exchanges associated with the processes. At the conclusion of this step, the results of the business analysis are reviewed with the appropriate governance teams.



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Processes are a group of related business activities performed to produce an end product or to provide a service. Unlike business functions that are performed on a continual basis, processes are characterized by the fact that they have a specific beginning and an end point marked by the delivery of a desired output. The figure below depicts the relationship between the business processes, business functions, and the business area's business reference model.

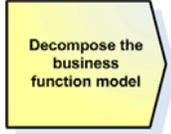
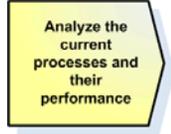
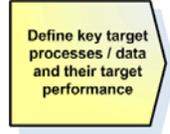


Functions	<p>A logical set of business processes performed on a continual basis.</p> <p>Have no specific beginning or end point.</p>
Processes	<p>Related business activities performed to produce an end product or provide a service.</p> <p>Have a specific beginning and an end point marked by the delivery of a product or output.</p>
Activities	<p>A group of business tasks usually executed in a sequential fashion to achieve intermediate results.</p>
Tasks	<p>The smallest unit of work performed by an organization.</p> <p>Limited in duration and scope.</p>

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2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details - >					
Inputs (source)	Stakeholder Exchange Diagrams (Step 2) SWOT Analysis Diagram (Step 2) Vision Document (Step 2) Goals and Objectives Hierarchy Diagram with Baseline Data (Step 2) Business Area Goals and Objectives to Parent Organization's Goals and Objectives Matrix (Step 2) Business Strategy to Mandates Matrix (Step 2) Business Area Products and Services Maturity Model (Step 2)	Stakeholder Exchange Diagrams (Step 2) As-Is Value Chain Diagram Target Value Chain Diagram Business Reference Model	As-Is Value Chain Diagram Business Function Model Existing documentation of current business process Existing documentation of current and planned investments Stakeholder Exchange Diagrams (Step 2)	Target Value Chain Diagram Business Function Model As-Is Swim Lane Diagram (actual organization) Existing Investments to Business Processes Matrix Business Area's Data Reference Model Stakeholder Exchange Diagrams (Step 2)	All products from this step
Outputs	As-Is Value Chain Diagram Target Value Chain Diagram	Business Function Model	Existing Investments to Business Processes Matrix As-Is Swim Lane Diagram (actual organization)	Target Swim Lane Diagram (proposed organizations) IDEF0 Diagrams for Critical Value Chain Processes Target Information Exchanges Target Logical Data Model Target Business Process to Data Entity CRUD Matrix Target Data Entity Stewardship Matrix	Business and Data Analysis Presentation
Who (role)	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Principal Data Stewards [C] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business and Data Governance Teams [C] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	5 days	5 days	15 days	25 days	10 days

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CTRL + click the activities for activity details - >					
Complexity					

Legend

Complexity:

Low High

Who:

R = Responsible
I = Informed
C = Consent

Keys to Success:

The key to the business analysis is to analyze to the lowest level of detail that is necessary to form actionable recommendations. Additionally, it is important that data and business analysis results be in sync.

3. Activity Details

Activity 1 – Determine the value chains for the products and services

Activity Short Description:

Using the business products and services identified during Step 2, the processes that the business area must perform in order to deliver those business products and services are identified. This should begin with a high-level focus on the key business processes that deliver products and services with the intent of identifying the critical chain of processes that deliver the value.

Activity Tasks:

1. List the products and services that are currently produced by the business area (from Step 2).
2. For each current product and service, diagram the business area’s current chain of processes (using the value chain). The value chain drawing is a high-level logical ordering of processes that provides an overview of how value (i.e., product or service) is produced.
3. For each target product and service, diagram the business area’s target chain of processes in a value chain drawing describing the value that will be produced by the business area.
 - a. The target value chain must be consistent with the business products and services being produced. The intent of the value chain analysis is to identify any differences in the processes that are currently being provided versus those that need to be provided in the target state. The value chain analysis will help determine where new processes are required, or where existing processes may no longer be necessary.

Activity Communications Considerations:

Consultation with business experts is essential to ensure validity of the value chain analysis.

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The results of the value chain analysis may need to be shared with key stakeholders to confirm the prioritization of the critical value chain processes.

Activity Work Products and Templates:

As-Is Value Chain Diagram: The As-Is Value Chain Diagram describes the current sequence of processes that deliver the current state products and services detailed in MBT Step 2. This work product is useful in evaluating the value each process adds to the business area's products or services. Note that the blocks above and below the processes are the management and support business areas from the Business Areas Visual produced in Step A.

- **TEMPLATE:** [Link to As-Is Value Chain Diagram Template \(Visio\)](#)
- **TEMPLATE:** [Link to As-Is Value Chain Diagram Template \(PDF\)](#)

Target Value Chain Diagram: The Target Value Chain Diagram describes the desired sequence of processes that will deliver the future products and services detailed in MBT Step 2. Note that the blocks above and below the processes are the management and support business areas from the Business Areas Visual produced in Step A.

- **TEMPLATE:** [Link to Target Value Chain Diagram Template \(Visio\)](#)
- **TEMPLATE:** [Link to Target Value Chain Diagram Template \(PDF\)](#)

Activity 2 – Decompose the business function model

Activity Short Description:

Business areas are decomposed to define a hierarchy that includes functions and processes. A business function is a logical set of business processes performed on a continual basis that has no specific beginning or end point. Functions are decomposed into processes which are usually executed in a sequential fashion to achieve intermediate results or an end-result product or service.

Activity Tasks:

1. Develop the business function hierarchy
 - a. A Business Function Model is created to show the critical business processes identified in the value chain analysis in the context of the business area functions and FEA BRM. Existing reference models that catalogue enterprise business functions may be used in structuring the functional hierarchy. Note that the processes in the business function model must be consistent with the processes in the value chain models.

Activity Communications Considerations:

Business experts must be actively engaged to properly identify business functions, especially in situations where a formal business function model is not available.

Activity Work Products and Templates:

Business Function Model: Once the processes are identified in the value chain, the business function model is developed to show the hierarchy containing the processes and to map to the FEA BRM.

- **TEMPLATE:** [Link to As-Is Business Function Model Template \(Visio\)](#)
- **TEMPLATE:** [Link to As-Is Business Function Model Template \(PDF\)](#)

- **TEMPLATE:** [Link to Target Business Function Model Template \(Visio\)](#)
- **TEMPLATE:** [Link to Target Business Function Model Template \(PDF\)](#)

Activity 3 – Analyze the current processes and their performance

Activity Short Description:

Critical business processes are defined in detail in order to depict the decisions, actions, and activities of the business area. The analysis also identifies the organizations that perform the processes. Interactions across organizational boundaries in performing the business processes are described in swim lane process diagrams for the current business environment. Existing investments are also mapped to the business processes in order to identify gaps in investments, redundant investments, and investments that do not align with the target business environment.

Activity Tasks:

1. Map existing investments to the business processes
 - a. The existing investments are identified and analyzed to determine how they relate to the business processes. Results of this analysis are described using a matrix of the existing investments that support the business processes.
2. Create As-Is IDEF0 Diagrams for critical value chain processes
3. Develop the As-Is Swim Lane Diagram to describe the As-Is processes and their organizational relationships
 - a. Using the sequencing of data flow and business processes as identified in the value chain, IDEF0 diagram, and business function hierarchy, an overall swim lane flow is developed to describe a view of how organizational units interact in the context of the business processes that are delivering the products and services.

Activity Communications Considerations:

Business experts need to be consulted to ensure that the appropriate details of the business processes are adequately represented and that any available business performance data are incorporated into the analysis.

Activity Work Products and Templates:

Existing Investments to Business Processes Matrix: This matrix describes which of the existing investments support the business processes.

- **TEMPLATE :** [Link to Existing Investments to Business Processes Matrix Template \(Visio\)](#)
- **TEMPLATE :** [Link to Existing Investments to Business Processes Matrix Template \(PDF\)](#)

As-Is IDEF0 Diagrams for Critical Value Chain Processes: The IDEF0 diagrams provide more detail on the processes from the value chain. Additionally, the IDEF0 diagrams can be used to decompose processes and provide more detail on the activities within the processes.

- **TEMPLATE:** [Link to As-Is IDEF0 Diagrams for Critical Value Chain Processes Template \(Visio\)](#)
- **TEMPLATE:** [Link to As-Is IDEF0 Diagrams for Critical Value Chain Processes Template \(PDF\)](#)

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As-Is Swim Lane Diagram (actual organization): The As-Is Swim Lane Diagram describes the dependencies, roles, and interactions between business processes.

- **TEMPLATE :** [Link to As-Is Swim Lane Diagram \(actual organization\) Template \(Visio\)](#)
- **TEMPLATE :** [Link to As-Is Swim Lane Diagram \(actual organization\) Template \(PDF\)](#)

Activity 4 – Define key target processes / data and their target performance

Activity Short Description:

The target business processes and data environment are analyzed to identify opportunities for process improvement and target information requirements. The target business processes are defined consistent with the Business Function Model and the business area's business reference model. The scope of this analysis should focus only on critical processes, at an appropriate level of detail and granularity, so as to:

- Identify which business processes need to be reengineered
- Facilitate the derivation of the data architecture from the business architecture, and
- Maintain traceability between the business architecture and data architecture.

This activity will produce the Target IDEF0 Diagrams for Critical Value Chain Processes and the Target Swim Lane Diagrams (proposed organizations). Data dependencies and interactions are also captured using the information exchange matrix. Once the models are aligned, the target business process and data entity matrices are used to identify candidate authoritative data sources (ADSs), support planning for business services, and identify which Principal Data Stewards will need to be engaged during development and execution of the target model.

Activity Tasks:

1. Define and analyze the target business processes and performance
 - a. For critical business processes, the IDEF0 diagrams are used to describe the units of work, inputs, outputs, guidance, and enablers associated with each business process. This analysis should consider available efficiency metrics associated with the outputs from the critical business processes.
2. Develop the Target Swim Lane Diagram to describe the target process and organizational relationships
 - a. Using the sequencing of business processes and data flow identified in the value chain, IDEF0 diagram, and business function hierarchy, an overall swim lane flow is developed to describe a high-level view of how organizational units interact in the context of the business processes that deliver the products and services.
3. Review the mapping of existing investments to the business processes in order to identify gaps or investments that may not align with the target business architecture.
 - a. Any gaps or investments not aligned with the business area's strategy will provide the basis for developing findings and recommendations in MBT Step 5.
4. Define and analyze the target data environment

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- a. Develop the Target Data Stewardship Matrix which maps the information classes to the organizations containing the data stewards. Data stewards are responsible for the creation, maintenance, and quality of data to support target business activities in the target environment. There is only one Principal Data Steward for an information class. Additional data stewards are identified at the bureau/office level and they assist the Principal Data Steward.
- b. Develop the Target Information Services Matrix that describes the producers and consumers for each information class along with the associated information services. This is the beginning of planning for information services and provides the basis for understanding the organizational information stakeholders. Note that the information service type that is to be specified for each information class producer-consumer relationship is defined in the FEA Data Reference Model (DRM) Chapter 5.
- c. Develop the Entity Relationship Diagram which is a type of conceptual data model that provides a graphical representation of the business data requirements as entities and relationships. Entities are recognizable concepts such as a Person, Place, Thing, or Event which have relevance to the business and which are eventually transformed as tables in a database and/or as an XML Schema.
- d. Develop the Target Logical Data Model for the business area and understand how data and business interact with each other in the future business environment. The Target Logical Data Model is based on the structures identified in the conceptual data model. It is not a database. Data is described in as much detail as possible without regard as to how they will be physically implemented in a database. Business experts drive the development and maintenance of this model. This model contains the data requirements and informs the process for identifying candidate authoritative data sources (ADSs).
- e. Develop the Target Business Process to Data Entity CRUD (Create / Read / Update / Delete) matrix that maps the data entities to the business processes. The CRUD matrix helps identify: (1) what data actions take place with each process, (2) what data is used by the business, and (3) what data to process cluster might provide a service component opportunity.

Activity Communications Considerations:

Business experts need to be engaged in defining the target business and data models.

Activity Work Products and Templates:

Target IDEF0 Diagrams for Critical Value Chain Processes: The IDEF0 diagrams provide more detail on the processes from the value chain. Additionally, the IDEF0 diagrams can be used to decompose processes and provide more detail on the activities within the processes.

- **TEMPLATE:** [Link to Target IDEF0 Diagrams for Critical Value Chain Processes Template \(Visio\)](#)
- **TEMPLATE:** [Link to Target IDEF0 Diagrams for Critical Value Chain Processes Template \(PDF\)](#)

Target Swim Lane Diagram (proposed organizations): The Target Swim Lane Diagram describes the dependencies, roles, and interactions between business processes.

- **TEMPLATE:** [Link to Target Swim Lane Diagram \(proposed organizations\) Template \(Visio\)](#)
- **TEMPLATE:** [Link to Target Swim Lane Diagram \(proposed organizations\) Template \(PDF\)](#)

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Target Data Stewardship Matrix: The target data stewardship matrix maps the information classes to the organizations containing the data stewards.

- **TEMPLATE:** [Link to Target Data Stewardship Matrix Template \(Excel\)](#)

Target Information Services Matrix: The target information services matrix describes the producers and consumers for each information class along with the associated information services.

- **TEMPLATE:** [Link to Target Information Services Matrix Template \(Excel\)](#)

Entity Relationship Diagram: An ERD is a type of conceptual data model that is a graphical representation of the business data requirements as entities and relationships.

- **TEMPLATE:** [Note: No generic template is provided, as this work product is typically generated using the available data architecture modeling tools within the organization]

Target Logical Data Model: This model is based on the structures identified in the conceptual data model.

- **TEMPLATE:** [Note: No generic template is provided, as this work product is typically generated using the available data architecture modeling tools within the organization]

Target Business Process to Data Entity CRUD Matrix: The Target Business Process to Data Entity CRUD (Create / Read / Update / Delete) matrix that maps the data entities to the business processes.

- **TEMPLATE:** [Link to Target Business Process to Data Entity CRUD Matrix Template \(Excel\)](#)

Activity 5 – Formulate the business analysis results and brief to governance teams

Activity Short Description:

This activity involves developing a summary of the results of the business analysis and providing a briefing to the governance teams. The key messages for the governance teams are focused on what is the underlying need for change, and what changes in business architecture, data dependencies, information flows, and existing investments are required to effect the change.

Activity Tasks:

1. Create a summary briefing
 - a. The summary briefing provides a summary of the business and data analysis, and the results of the mapping of existing investments to business processes.
2. Brief the governance teams
 - a. Either through a formal presentation, status review, or formal distribution, results of the business analysis are provided to the governance teams. The purpose of this communication is to solicit feedback from the governance teams in order to identify and resolve any issues that may exist. Incorporate approved feedback into the analysis, notes, work products, and other artifacts as necessary.

Activity Communications Considerations:

The Executive Sponsor should present the results of the business analysis to the appropriate governance teams.

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It may be necessary to preview the results of the business analysis with key governance team members in order to identify issues up-front.

Activity Work Products and Templates:

Business and Data Analysis Presentation: This work product is focused on what is the underlying need for change, and what changes in business architecture, data dependencies, information flows, and existing investments are required to effect the change.

- **TEMPLATE :** [Link to Business and Data Analysis Presentation Template \(PPT\)](#)

4. Step References

MBT Step 1: Perform Blueprint Project Management, Version 1.5, December 2006

MBT Step 2: Analyze stakeholders / drivers and define the target business strategy, Version 1.5, December 2006

Federal Enterprise Architecture Program, [FEA Consolidated Reference Model Document](#), Version 2.2, July 2007

Federal Enterprise Architecture Program, [The Data Reference Model](#), Version 2.0, November 17, 2005

Porter, Michael E., *Competitive Advantage: Creating and Sustaining Superior Performance*, New York, NY, 1985

Spewak, Steven H., *Enterprise Architecture Planning: Developing a Blueprint for Data, Applications, and Technology*, Princeton, NJ, 1992